

CLAIMS

1. A process for saccharifying starch, said process comprising contacting starch or partially hydrolyzed starch with a glucoamylase which has an amino acid sequence that has at least 80% identity with the glucoamylase of SEQ ID NO:7, under conditions that result in saccharification.
2. The process of claim 1, wherein said glucoamylase is present in the range from 0.05 to 0.5 AGU per gram of dry solids.
3. The process of claim 1, wherein said starch or partially hydrolyzed starch comprises at least 30 percent by weight of dry solids.
4. The process of claim 1, further comprising contacting said starch or partially hydrolyzed starch with a debranching enzyme selected from the group of pullulanase and isoamylase.
5. The process of claim 1, wherein the contacting is conducted at a pH of about 3 to 5.5 and at a temperature of 60-80°C.
6. The process of claim 1, wherein said glucoamylase is derived from *Talaromyces emersonii*.
7. The process of claim 1, further comprising contacting said starch solution with an acidic alpha-amylase.
8. The process of claim 7, wherein said acidic alpha-amylase is derived from *Aspergillus niger*.
9. The process of claim 1, wherein the glucoamylase has an amino acid sequence that is at least 90% identical with the glucoamylase of SEQ ID NO:7.
10. The process of claim 1, wherein the glucoamylase has an amino acid sequence that is at least 95% identical with the glucoamylase of SEQ ID NO:7.
11. The process of claim 1, wherein the glucoamylase has an amino acid sequence that is at least 97% identical with the glucoamylase of SEQ ID NO:7.

12. The process of claim 1, wherein the glucoamylase has an amino acid sequence that is at least 99% identical with the glucoamylase of SEQ ID NO:7.

13. A process for saccharifying a liquefied starch solution, which method comprises contacting said starch solution with a glucoamylase that has an amino acid sequence that has at least 80% identity with the glucoamylase of SEQ ID NO:7.

14. The process of claim 13, wherein the glucoamylase has an amino acid sequence that is at least 90% identical with the glucoamylase of SEQ ID NO:7.

15. The process of claim 13, wherein the glucoamylase has an amino acid sequence that is at least 95% identical with the glucoamylase of SEQ ID NO:7.

16. The process of claim 13, wherein the glucoamylase has an amino acid sequence that is at least 97% identical with the glucoamylase of SEQ ID NO:7.

17. The process of claim 13, wherein the glucoamylase has an amino acid sequence that is at least 99% identical with the glucoamylase of SEQ ID NO:7.